

Fat Burning vs. Fat Storing Hormones

If you're looking to lose weight and keep it off, it's helpful to understand which hormones work for you and which hormones work against you that way you can ignite the good guys and put the breaks on the bad guys!

Ignite Your Fat Burning Hormones

If you're trying to lose weight, fat loss is really what it's all about. You'll be happy to know there are specific fat burning hormones that you have the power to ignite. These hormones trigger your body to break down stored fat into free fatty acids (lipolysis). And promote the use of these fatty acids in the energy making process as well as hormones that promote muscle growth. Muscle cells require more energy than less metabolically active cells. Thus, the more muscle you have, the more fat you'll burn.

Let's meet your fat burning hormones...

Human Growth Hormone

Human Growth Hormone (HGH) is a hormone secreted by the pituitary gland at the base of your brain. Its key role is to promote cellular growth and repair. But, it also plays a role in fat metabolism and body composition. In fact, HGH does it all! It facilitates lipolysis, promotes the utilization of free fatty acids, and stimulates muscle growth.

Unfortunately, your body naturally begins to secrete less HGH as you age. And many studies have shown that a deficiency in HGH can lead to the accumulation of body fat as well as many other negative health consequences.

On the other hand, raising HGH levels in adults with an HGH deficiency has been shown to reduce body fat, especially in the abdomen.

Two of my favorite ways to naturally boost HGH is **high-intensity interval training (HIIT)** and **mini-fasting**.

HIIT

HIIT is an exercise regime that entails short bursts of high-intensity exercise followed by periods of recovery at lower intensity or rest. Mounting evidence suggests that HIIT is one of the most effective workouts to burn body fat.

HIIT increases your HGH levels, but it also works by:

- Boosting your adrenaline (another fat burning hormone)
- Increasing your metabolic activity up 24 hours post-workout
- Increasing your insulin sensitivity
- Suppressing your appetite after the workout

And what I love just as much is:

- You can do it anywhere (even outdoors)
- It doesn't require any special equipment
- Results are possible in as little as 15 minutes, 2 to 3 times a week

Mini-Fasting

Mini-fasting means for 1 or 2 days a week, you take a break from eating. The rest of the time, you follow basic eating guidelines you already know: eat healthy fats, lean proteins, veggies, and some fruit. And, avoid processed food, of course.

There are many health benefits to mini-fasting, including an increase in HGH. But also consider the following:

1. You'll take in fewer calories. And fewer calories = weight loss.
2. It's extremely efficient. Lipolysis begins very soon after you start your fast. As soon as your body finishes digesting its last meal.

Insulin-Like Growth Factor 1

Insulin-Like Growth Factor 1 (IGF-1) is a protein with a similar structure to insulin. It's primarily synthesized and secreted by the liver when HGH is released into the bloodstream. Thus, when HGH decreases, so does IGF-1.

IGF-1 plays a large role in stimulating growth. Partly by influencing the action of HGH.

While IGF-1 doesn't directly impact lipolysis, it does promote the use of fatty acids for energy production in skeletal muscle. And as an added bonus, the presence of IGF-1 prevents the body from storing fat. In this study, IGF-1 deficient individuals had less body fat and more muscle mass after 8 weeks of supplemental IGF-1. Eight weeks of supplemental HGH also produced similar results.

Increasing IGF-1 requires boosting HGH. Thus, **HIIT** and **mini-fasting** are both excellent strategies for this purpose.

Glucagon

Your pancreas secretes glucagon when your blood glucose levels are low. Essentially, glucagon stimulates lipolysis to generate fuel in the absence of food.

In addition, this paper found that a short burst of glucagon is released in response to eating. The researchers believe it then sends a signal to the brain via the vagus nerve to prevent overeating. The authors also point out that intravenous injections of glucagon during meals have been shown to reduce food intake.

And the benefits don't stop there! This animal study found that glucagon not only promotes lipolysis, but it also prevents fat from being stored in the first place.

So can you guess what's best for increasing your glucagon levels?

Mini-fasting! Are you starting to see a pattern? Mini-fasting lowers blood glucose levels, which then causes glucagon to be secreted.

Thyroid Hormones

Your thyroid gland, located in your neck just below your Adam's apple, is responsible for making and secreting your thyroid hormones. And we know that they play a significant role in your metabolism as well as many other systems in your body.

In fact, almost every cell in your body has receptor sites for thyroid hormones, including fat cells. Thus, when it comes to burning fat, thyroid hormones mobilize free fatty acids and enhance their utilization in the energy making process.

This helps explain why individuals with low thyroid hormone levels (hypothyroid) are often overweight and have difficulty losing fat. And why individuals with high thyroid hormone levels (hyperthyroid) often experience unwanted weight loss.

This study found that dieters with high baseline levels of thyroid hormones experienced significantly better weight loss results during their first 6 months on the diet. These researchers also found that increased thyroid hormone levels led to a reduction in body fat among other positive outcomes.

To promote optimal thyroid hormone levels, eating an **anti-inflammatory diet** is essential. Such as my **Bone Broth Diet** as well as my **80/20 plan**. Two key nutrients for optimal thyroid health include iodine and selenium. Sea vegetables, such as nori, kelp, wakame, and kombu are excellent sources of iodine. Brazil nuts are a great source of selenium. And 2 a day is all you'll need.

It's also important to avoid exposure to heavy metals, mold, and chemicals, including pesticides and those found in personal care products and household cleaners. These toxins can negatively impact the health of your thyroid.

And don't forget to exercise!

Adrenaline

Your adrenal glands, which sit on top of your kidneys, secrete adrenaline in response to stress. It's one of the ways your body prepares itself to flee or fight.

Adrenaline increases your heart rate to improve circulation. It increases your breathing to pull more oxygen into your lungs. And it releases fuel in the form of glucose and fatty acids from storage so that your muscles have the energy they need to deal with the threat at hand.

Now I would never recommend adding more stress to your life to boost adrenaline. But, I am a big fan of **HIIT** workouts for this purpose.

Testosterone

Testosterone is a sex hormone that men naturally produce more than women. It's what gives men their sex characteristics.

Low testosterone has repeatedly been linked to abdominal obesity, especially in men. And studies have found that raising testosterone levels in obese men is an effective strategy for reducing body fat.

In these cases, researchers suggest that testosterone boosts energy production as well as motivation and vigor. Testosterone is also essential for building new muscle cells (tiny fat burning machines) whether you're a man or a woman.

Exercise and **proper nutrition** are major players when it comes to increasing testosterone. This study found that HIIT resulted in an increase of testosterone post workout.

The researchers also found that dietary fat intake, including saturated fat, had a positive correlation with resting testosterone levels. This is just one of the many reasons why I don't recommend avoiding fat completely. But stick to healthy fats, such as coconut oil, avocado, olive oil, and butter or ghee from grass-fed cows.

Also consider... It's worth mentioning a few other factors you should consider when it comes to igniting your fat burning hormones.

1. Make sleep a priority. The pituitary gland naturally secretes HGH during deep sleep. And it's also when the body repairs itself and builds new muscle tissue.

2. Find healthy ways to manage stress. Consider meditation, mindfulness, and spending time in nature. Chronic stress works against your body's fat burning mechanisms.
3. Always choose nutrient-rich, whole foods over processed foods. Your body needs a variety of nutrients to synthesize your fat burning hormones. And it also needs nutrients to mobilize and burn fat.

So start by unleashing the fat burning hormones and then work to put the breaks on the fat storing hormones.

Put the Break on Your Fat Storing Hormones

Insulin

I'm sure you've heard about insulin. It's a hormone associated with several serious conditions, such as metabolic syndrome and diabetes. And these conditions are also linked to obesity.

Your pancreas naturally secretes insulin as your blood sugar (a.k.a. glucose) level begins to rise after you've eaten a meal or snack.

One of its main functions is to usher glucose into your cells. This is important to maintain optimal blood glucose levels as well as supply your cells with fuel to make energy. However, if there is an energy excess, then insulin plays a role in storing the glucose for future use.

First, the excess glucose is converted into glycogen and stored in the liver and muscle cells. Once glycogen levels are maxed out, the rest is stored as fat.

In addition, insulin shuts down your body's ability to burn stored fat. Essentially, your fat stays tucked away until your cells need energy in the absence of insulin and food.

Thus, it's important to maintain optimal levels of insulin in your bloodstream. And this is one of the many reasons why you should avoid processed foods when it comes to weight loss. Foods high in sugar and refined carbohydrates (i.e., bread, pasta, crackers, etc.) raise your blood sugar quickly. This, in turn, releases a surge of insulin.

Repeated cycles of this can lead to insulin resistance. Essentially, your cells stop responding to insulin. But since glucose can't transport itself into your cells, your pancreas continues to secrete more insulin. And when insulin levels in your bloodstream remain high, your body becomes a fat storing machine.

It's also worth noting that if insulin resistance is not addressed, it can lead to metabolic syndrome and type 2 diabetes.

Exercise is an effective way to balance your blood glucose and insulin levels. However, exercise alone won't cut it. Dietary changes are always necessary.

Cortisol

Cortisol is commonly referred to as the "stress hormone." And rightfully so. Because your adrenal glands release cortisol when you're under stress.

Now, this isn't inherently a bad thing. It's a mechanism put in place to supply the body with fuel as well as other resources when we're presented with a threat (real or perceived). But the problem arises when your body is under constant stress. And cortisol levels remain high. Which is common in today's world.

Here are three ways in which high cortisol can hijack your weight loss efforts:

1. Cortisol triggers the release of glucose from our cells. A rush of glucose raises insulin levels. And as previously mentioned, a chronic cycle of this sets the stage for insulin resistance.
2. Cortisol prompts the body to store fat (primarily in the abdomen) as a backup source of fuel. In fact, a chronic elevation of cortisol has been linked to abdominal fat and obesity in numerous studies.
3. The combination of stress and elevated cortisol has been shown to influence food choices and intake. Specifically, there is a preference for foods higher in sugar and fat.

So when it comes to losing weight, especially the extra pounds around your waist, it's essential to keep your cortisol levels under control. And most of all, this requires finding effective ways to reduce your stress as well as coping strategies.

Meditation and mindfulness are wonderful options for this purpose. However, if these aren't for you, consider spending more time in nature or with friends and family that lift you up. Read for pleasure. Journal your experiences, thoughts, and feelings. Practice yoga. Hit the gym. The goal is to find a method you enjoy and look forward to. If the thought of your stress-relieving activity causes stress, keep trying new strategies until you find the perfect fit.

Estrogen

Estrogen is predominantly a female sex hormone. It's responsible for the development of a woman's reproductive system.

Estrogen also plays a role in the distribution, storage, and utilization of fat. In fact, estrogen deficiencies in women have been associated with an increase in

fat mass. However, the exact mechanisms aren't yet fully understood.

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As women pass their childbearing years, estrogen levels naturally decline. And this study found that postmenopausal women store more fat (and burn less fat) than premenopausal women. On the other hand, abnormally high levels of estrogen in men have been associated with weight gain and obesity.

So whether you're premenopausal, postmenopausal, or a man, it's important to take steps to balance your sex hormones. These include:

1. Eating a nutrient rich diet, including healthy fats (i.e., wild salmon, grass-fed butter, and unrefined coconut oil). Keep in mind fat and cholesterol are needed to synthesize your sex hormones. Two other specific foods I recommend include flaxseeds and cruciferous vegetables (i.e., broccoli, kale, and cabbage).
2. Avoiding endocrine disrupting chemicals (i.e., parabens, phthalates, and BPA) found in plastics, household cleaners, personal care products, and cosmetics. These toxins mimic your body's hormones, which can significantly impact their function. The EWG Skin Deep Cosmetic Database is a great resource for checking the safety of the products you currently use and finding safer options.
3. Exercising, but not overdoing it. Excessive exercise can lead to hormonal imbalances.
4. Reducing stress.
5. Prioritizing sleep.
6. Moderating your alcohol consumption.

In Conclusion...

To shed excess pounds, hormonal balance is key. Eating healthy, exercising, reducing stress, and sleeping well are all essential.